

IN. F. .. l.o. fept 5

1 Lept 5 3 pring polden a marchine Doing westerand over geting our, by min of rather Olds and I dima the chanter of the country show, stillingt in the putting filled and ( not because of the state -: Eniodend of Touthout in the word let in the mixed and decide-on, stade - melling - mel of abundant, fored and wordlot apar of the down - con my servery extangular. be early counted Istward it becomes more regular varied principally anaco-ling of backersten by stream training which are worded. a penelia decli queen coter Md. n. w. of Wash. 14000 all. become fewer the pattern Import conflictely rectangula line patcher generally nquely and wordlots fewer pulapi not to early distinguished but to 590 of total aren. their fine texture and even beight is important and probably distinctive Deume common and the Difference interlung dis & small crown and do-e standa - f pin pattern become but less we lange wounded trouse, ( - 1 deficient shale of gre ) of the regula, Orly a Ptle braze wild, much to difficulty of distinguishing Cond chadows are lengther, also,

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VIRGINIA

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A ROORUM & PEASE PRODUCT

1 L 1 .

Lept. 3-9 Coastaf range along road from La quaira to Caracas

at this time of the year the hills are mostly at least somewhat gheen, though there are some areas low on the seaward side that are red and ended. Upward the regetation becomes more and more luxuriant. according to the Veneryuelans there were formerly thousands of grats on there hills, but they have been completely elimin. ated now. The acacia was eater to bare stiller befrere, is now green and luxuriant. On the side of the canyon leading up toward Caracas, fracing/inland; the vegetation is largely acasig and Cereus (peruviana?). This same Type is on the lower slopes of The seaward side, a pew hundred freet above La quaira. above it is replaced by a moister broad leafied type of second growth, with some Inga, etc.

Canger Up the is being built a new and much straighter road - a super highway. It will have frew curves but will reach, at the same altitude as it goes over the Trans into Caracar as the present ta quaing road. In the emstruction great scars as being Cut ento The mountainside

the mountain of the east of the pass is quite high, well invoded on the repper slopes, and, according to Lasser, hus a small params on top, with Espellia.

Venezuela 1952 Left. 7 - Rancho grande national Parli. red flowers cinchona publescens Vall one tree in moist frest in raving below road tall; fruit 13 Beslevia in wet frest in deep valley m. tall; flower in dech valley branched, emmy in maist frest on steel ridge the south Rancho grande is situated fp, this just east of a graf in a y enormous mountain vidge at 1000 m. thera on the south side of the growth of ridge. The prevailing elisonia, wind here is from the east, the shoules but local winds, of by with connecting origin (?) seem The walls more important. Two of es but ingthere, one ascending from here is no the seaward the other ascending y. The giranther the valley from the south, meet at the grap. The south with bromeliads wind seems dominant and shyter. They wetter. These produce Apanse of sufficient rainfall & the base. maintain a wet frest. & frest are with abundant lianus riarteg and epiphytes in the garge

dimiens, 2h de marso de 1954.

Dr. F.H. Fosberg United States Department of the Inturior Geological Survey Washington 25. D.C.-U.S.A.-

Dur Dr. Fosberg:

Muches par su carte y por el informe que ne suministró referente el Servivel Service Committee.

El mitio laude le. coleccionó la munsura de <u>dinchona</u> está situado intro dumnitas y lancho Grando a una altura de mus o menos 600 mto.

En unión de l'agdalena reciba mis mujores descos por el bisoustar de Ud. y el de la Sra. Fosberg.

Bincommente,

Tobine Lasser

Apartado 2156 Caracas, Venezuela

Dragning Verigina Legit. 7 - Kangely grands - Mention of free of ... old leaves ned from Circlion pulses some let are true in month of the t quant should I in tall; fruit in range become and 1) Historia in wet frest in deep vally buylet and, 950 m. stond 1-3 m. Tall; flower in dech walling 1050 m. O.S. m. Tall. comment in monet forest on steel vidge Rancho grande is situated running up to the south side of the grap, this just east of a graf in a characterized by enounce mountain vidge at 1000 m. trees of granthers on the south side of the and an undergrowth of ridge. The prevailing germanene, Helinnia, wind free is from the east, and various other churche but local winds, of convection origin (?) seem and large buby with many frems. The walls more important. Two of, are quite steep but ing. there, me ascending from whally so. There is no the seaward, the other arrending proper canopy. The giranthen the walley from the south. trees tower about the others meet at the grap The south and are braded with bramelieds wind seems ilominant and and other episphyter. They wetter. These product have a great expranse of sufficient rainfall to maintain a wet frest. fruttrenses at the bare. with abundant lianus immon in the frest are stilt palmy ( rialey and epiphytes in the garge

amol a charter of least in.
This has a prime any true
Larger true he confidently
The still palma are up
to 30 m, tad and have a prime it

a conic among ment of a still worts about 2 m, high at base, and it is difficult

or introville to find any

the trunks, below where to

alrial roots originate.

In the ridges in a slightly drile type of frest, deminated by Brosinum, lastring the granthera, with another grain with a great cluster of closely tracked mosts at the base. The undergrowth have in a little las dense. the ground is trickly covered with leaves. It to possible to walk freely in this frest, though occarionally necessary Which through love patches of brush.

Drague

On the main riskys above Portachuelo gafe is a slightly more resulty frest, with much undergrowth and masser of Vilea, Calathea, ets. a species of Thisandia is commenty epipelytic, with abundant oring, Berver along the bare econgate dramines, the cootlar as common is the path frementh the trees in which it grows. There are or free grasser, also, along the trail. at the bottom of the gap, near the road, they lis a great many of Hedgehim, with like and Colerus scritellarivides. On there were seen anexty. ordinary abundance of insects, both in brinds and individuals. Leveral The great number of flies, washer, etc. were not collected.

is a stand of Carmanian equisetifolia, amall trees, obviously not in

good conditions medicales

toward managering ather most thick forest along road, a single small true of Circling pulsersens, it as a format gladring an almost gladring format (5444) This is at me of the lowest altitudes recorded for Circling pulsersens.

5 dm tall, symptimes less.

here and low shows.

have admistry of

Two areas on opposite sides of road compact. Tennis similar. On n.w. side - mired stand about 1/2 pines, worthy P. winginiana, incl. a few old "worly true" 3-4 din. dian. about 1/2 quereus falsata, trees less than 3 din. about 13 other value g. alba g. stelleta, g. craines, g. menting, Lindendon, Canga, etc. Very led oaks less than i'm! tall mostly 15-20m. avery sparse and unever understory is made up of a come floridg, sapling aces whom sapling Myrsa sylvatice some Vilnumum dentatum ate tangled somewhat with knielas glace. The Vacionum - gaylussain ground cover is mixed with considerable Chimaphila marila, some patrices of Vibunian acerifoliam a few greants of Cypripedium acaule. In places it is very spanse a lading. Under by fines is a thick lays of dead nexaller

Inthis and the end of the end what appears is the street of the end of the en

in it. Ruty still saidet.

On the south east side all of the larger trees 4-5'din have been logged off rather vicentily rings still countable but some polynner evident. short of these strings are lint, and, judgins from back, substly Pinus schinata! Three stumps of Vino counted strong 113,94, and 75 rings, respectively. all were in general 4-5 dm. size range. I walk the inner 13 of rings wer wide, the outer of running nanow. Two oak strongs. did not show this, nings into sive o ma a leas uniform. my country had 78 rings.

Fairfax Co.

This could be interpreted as meaning that the pines grew more or ders rapidly until the hardwoods began crowding Them, then only grew very slowly brolding Their own for a long time. the remaining fresh here is principally oakabout equally 8. falcata Isom q. cocking a little q. alba, Myssa gylvolting, Pinus virginian, P. Cechinata Lindenden, and Populus grandidentata. It is ragged and rather other crowned with a very unever second story 1-5dm. tall of oal saplings ace rubrum suplings, Lassafras and Carya safting Vibraniam dentation, tangles ently a little Amilan glacing and G. notundifolia. The Vaccinium - gazzania ground cover netter uneven and with some trends.

erlington Co.

19

Jet, 25 - oth complet Pertagn Bldg. area moted in 1914 1 remble tall grans main seems to have changed very little. and Solyhastrum news one cooleminants, at on the other locally dominant. are feefreder a consista. Lotistugs Ligge Tuthering On bour strate in a this lichen and many Condred. frattered great ? a deathern, and i spains imasin of frames senting almost unaltered clay, baked hard and cracked in the current dronglet.

other parts of pit aimost bay a continual strain by a continual strain from the walls of the frit forming thought alluming the almost families deposits these almost families are prolygons resembly outlines by tenny grasses, etc. apparently the masses, etc. apparently them are really delicitation and the them are really delicitation than and really delicitation than and really delicitation than and really delicitation than and really delicitations.

mitchella africalant in ground, mostly sterie, some hypordium complaration and small tree secollings.

No young lines. Very little Chimaphila manulata.

34616 Mitchella repens

adjacent field with thick supling of same six or large of pines mostly

dense mat on barner of

edge of fred, thin

Fairfax G.

23

Soil brown, this layer about room, underlain by redbrown 13 layer. Surface covered by a duff of pring needles and some broad leaver 5-8 cm. thick. Corner fruity common on ground. Invasing from all sides by knicking, at corners from ming tangle, in interior a very time meturn of and some thing meturns of and and some at edges.

prostrate dull greez; fruits searles.

This is separated from the tall stand (above) by an elf wandway and pence: from this it is invaded for a few feet by a dense tangle of foricera joponica. This spread a few m. faither on but as a thin meturn of smaller wines. Beyond

erry.

シハハーししょ

ber-

2, there

glory,

ree

26

Mov. 25 - Hong from River

and forth River

in thick duff layer

woods of fines virginiana.

B4622 Corallorhiya

rare

13 Chimaphila maculata emmon 13 24 Chimaphila umbellata locally common

12 26 Gield, with mattery treet.

12 26 asplenium platyneuron
abundant in old field
27 Botrychium dissectum v. obligum
common locally

Pinus virginiang woods 1, it

11 19 Rycopodium lucidulum nave, small colonis, 11 30 Lycopodium complanatum common, large spreading colonie, somewhat in one plane; somewhat in one plane; stem bronze purple; flowers Gronze, lif white with purple spots along edge.

## PLANTS of MARYLAND Anne Arundel Co.

Mitchella repens L.

Locality West side of head of Broad Creek, arm of South River.

Occurrence Common locally in old field, with scattered trees.

Dac November 25, 1952

Alt.

m

Coll. R. Fosberg

No. 34628

Remarks Prostrate; fruit scarlet.

orls.

region.

week

enect

toose duff layer, fruiting

## PLANTS of MARYLAND Anne Arundel Co.

Mitchella repens L.

Locality West side of head of Broad Creek, arm of South River.

Occurrence Common locally in old field, with scattered trees.

Date November 25, 1952

Alt.

m

Coll. F. R. Fosberg

No. 34628

Remarks Prostrate; fruit scarlet.

## PLANTS of MARYLAND Anne Arundel Co.

Lycopodium lucidulum

Locality West side of head of Broad Creek, arm of South River.

Occurrence Rare, small colonies in old field, with scattered trees.

Date November 25, 1952

Alt.

m

Coll. F. R. Fosberg

No. 34629

Remarks Erect.

Vargering

Ich. - wacher fun Mate four francisco errny but cold windy day. Hundreds of drivers on water. Perhaps half are pintails. Many & Trees are sitting along the short sheltered by workinging banks. about it whe baldpater and 14 mg malards. a small flock of white donestic ducks, q in number, us also in the group, as we two crots.

Herring gulls in small numbers on the outer for t of hand, some of term beging beach, pursuing the Tylinch get present of head. Me duche can outfly the gulls but the gulls but manower the duck, and usually finally 7-1 the bread!

irlington Co. alnus serulatg is in full bloom.

dentinual stream visitors and defeart mostly bringing dry bread to feed the duces. In were 1, 12-15 cars present.

above the so level of the stream.
The country rock enforced in most places along the excarpment, is red to purple to diff westward, toward the Kun feneral small brooklets cross the west part of the area, originating in springs some distance back of the scarp. The walls of the scarp. The solope gently except the bottom foot or troop,

but in places is almost

Below this is a flat terras

water, but usually well

sheer into the water.

flooded by extreme high

tainfar Co. which may be cut in, but are not always. The soil on this slightly disserted slope is quite thin, dants purplish trom, filled with small shale platelets. On the flat, belind this the ground has no general slope. Part of (3) Culr Run ?) part westward. There is evidently an imprevious layer, as the water table at this time seems to be practically at - he surface. Slight depressions have water in them. This is apparently not a permanent condition as they are no agustic frants. a very large moss makes up the only distinctive ground cover in these wet places at this season. all of this land except the extreme south tip is wooded. The south tils is pasture. The words is rather peculian. There is a

1953 Tairfax G. Virginia 40 scattering of fairly lack of stumps except very old and thoroughly lange ed treez, mainly outs. There are my rotten ones. It it were not for these common on the month All stremps it would half a third. Between seem probable that they is a thin wood, This is an old field, varying from misely abandoned 20-30 years transcribed - Only, history, ago, though wing very little trality, ash, etc. the undergrowth is to mixed handwood and almost lacking linus ving initing. would be hand to mythe glyn myng ga Statte led before listing ez plain. and fresher stumpe The fring is much more common away from the it might have Run, the mind gently got this appearance dissected land being In constant and in the mixed brandword yes. Repeated fires could Both of these types and the intermediates have be expossible, though a scattered but very only one burned long Empirer as etaly gar second story of fleriperus waisseen. melach of large and, away from the Kun, Jumperus Mr. Clark times virginiana saplings explained by suggesting up to 10 ft, tall. The that there had been ground is locally would much harvesting of by conjects of mosper, and cedar posts. But there The odd thing about this are not stumps & support this idea. frest is the small sigl It is quite easy to of all except the few wall in any direction scattered large trees, from in most of this word. 2 to 8" diameter, and the

is that not top many
years ago this land
was fracture with
scattered trees - represented by the occasions
wolf trees here it prot
and some of the leas
sheletons. This publicat
became thickly scattered
with Juniperus viginim
then gradually a

mixture of frime and

finally, with consider.

able grazing all along, reached its present state.

troad-leafe serubly

growth came in

A Cerlington Co. 46 1953 Vinginia syper march 14 - Best Least Durded bill-toy, with earthworks of Bivil Was fint. mixed deciderous words, with severe faily large beeches, beaches 1 - , m. tall. small tree 4 m. call trunk 34631 Fagus grandifolia pale gray tring brown, old leaves peristing abundant, sapling (m. tal), tol 31 Fagus grandifolis possibly injured. Lonal Buds in normal vignous leading sprouts.

Virginia non n ledges as

(also on flat ground above)
42 Cystopleis

12 43 Dryspteris marginalis (1.) pg rare on shaly slopes

1 44 asplenium platyneum common generally

11 45 arabis lysta L.

12 46 Ulmus rubia Mulif.

11 47 arabis lyrata L.

to 48 Cladonia

common on bare ground

12 49 cladnid slope

50 typed 1953

common on bare ground

12 50

13 51 common on bare ground

13 52 Thuilium

Common on ledger

12 53 asplenium trichmans, L.

13 54 asplenium shiyophyllum b.

12 55 Polypodium migar var.

11 96 Pellasa atropurpura (L) Links

fertile fronds dead,

flowers white,

prostrate, lustrous. Trustrate 52 1993 Virginia common in eliffy and edger common on ledges 59 Umbilicaria local in large rocks at foot of cliff, flooded by reasional high water common on cliff + ledges common on ledger tol frowing over moss Floodtenace a few feet above surface of run, breavy clay soil 63 Erigenta bulbosa (Michx.) Nutt. common 64 Vivla papilionacea Punsh 65 Medtensig virginics 66 Erythronium americanum common, few flowering 67 Claytonia virginica

anthon dark purple, styles purplish, petals
white.
Leaves gray-green, flowers bright violet,
cally purple, corolly
blue blue with brong,
leaves mottled with brong,
gray green blowers
yellow, bronge which,
modeling.
leaves fleshy flowers
white 5 pinking.

mar, 21 - Galows Rd. In mi. 1. of Lee Blood.

smal word of line, virginiany about 6, tall slight admixture of Groad leafed treez. Under givet, x grown over species seen.

c. Mitchella refrens

c. Chimaphily maculate

de Chimaphila umbellata

a Polystichum acrostichoil le fordyera propercens

e Khododendin nudiflorum

le Kalming latifolia

e Khus toxicodendron

a Kyropodium complanatum

la Vaccinium macillans la gaylussacia baccata

feale of occurrence: (for pine comm

a abundant (many individu

La abundant locally

e common (a few indi o Otternally at least g gregarious (colonies

u unammen - a few r. rans - one in time

de locally common

The obviously had been a ground frie The prines were somewhat blackened at base and some chared in the soil (duff lay). Thin honemalsle.

unity investigation Is in right in any direction) viduals in sight at almost one individual in sight. of a number of individuals, smetimes connected) scuttered individuals seen. individuals seen in stand. 56 1953 manyland

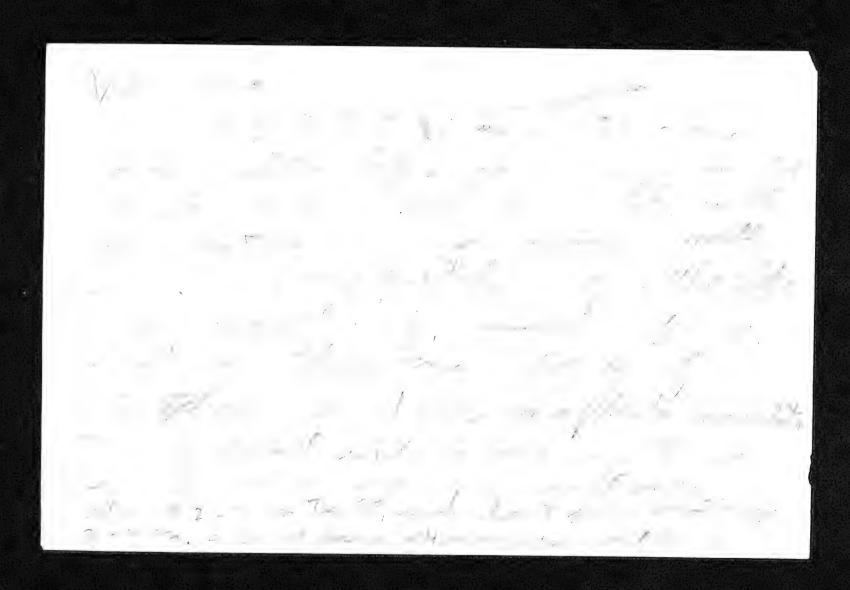
March 29 - Deale Buch, Chesapeake Ben

edge of open water plined with a thick sod of gass higher big filled with mud. at about lightide sere and it is strown evidences in the form of undercutting and collapse, of being attached by the bay waves. This belt of sool varies from one to five a eventen yard in width. The edge is scalloped inquely. The sod is principally formed by one or two species of spartina and has I va fritescens. One one a two points it seems to be underlain by a gravel with publics up to i a even 8 cm. and, very well won. The grade of the order monthly some new returns just any war .

Against the Penerson togs or an in not were less Ohn extral to an wall, it after ... - free con Think, Adde or almost intimos that own colo starty witchelle afew wird. 12-11-will) to afrom land a bery Surele phoron -Hum -nutr. mondage my? from for near - The one yalyen out for ofer of the show mitchella Jule ser in ou clump of -12, por 7 9 syn to winder. Shirm West. To U mycho. + acte Person End ford a sport or where has print free Africa tore days. En gy Chiefer spartient hicker - in the nature 1 dear severed other state

Uniformity of topography, and early bistic colonization High afrenge incidence Probable short length of your Cifing any given land sufface. Relative youth of hatritat as a whole

Limiting factors 4 development of complexity of flora and faging emsequantly of complexity of birtis communistico. ( weinty of seacorregulat high average level of In deficiency due & high pf High temperatus preventing mych humus accume lation except under saturated conditions Distance from sources of suitable species and ocean



scattered Simplifies

march 27 - Deal Beet, Elexaperic Bon

Edge of open water lines with a think sod of gass hizones six filled with mud. at about lightide are and it of shows evidences in the form of underentling and collapse, of being This belt of sod varies from one to five a eventen yards in wieth the edge is scallofted inquiry. The sod is principally garned by one a two species of Spartina and har scattered should of I va mutescens. One me or two points it seems to be underlain by a gravel with publice up to i over 8 cm. nous, very well worn. The july sing the sense or they give. They about Je . Dy warney.

Back of the stay best of sod there is a low wheren beach ridge of quarty sand more or less filled with shell, These of Ostrea, Mytillus, The is from me to two radythro feet high, 5-8 to yourds wide. It is covered by a serub of Bacchair halmifolis to price for fruterezas. The Bacchais may reach a height of 10 feet and is locally too dering to walk through earily there is generally some Iva even in the demost Barchais stands. Islidays semperviers Phragmite, communis and franting longe of with praniet.) an recaring this rodge is exentially continuous out in place has been washed wer and summer a quito obliterated by storm was, this expressally in it bad of and barys rever. Pourus sp. in esta on this violation but It in a god of Great higher ground to willow

The stand of the stands of the

1/20-5

The many france of the appearing to the action of the arms of the

Marily permission

in along the treet. Pinious wingutum also appears, feativard and in places is common ever pure pateller many The cicel rampies headward into tide elicinnely and finds. and belyen there the mount is human ind Backraw is govern Artuing in ( 22 giving rise to?) the hummers. I street to hummoch an channels with deep gray sticky mud in them. Up a mile of 20 horn the mouth of the creck are amall fratcher of ypha associated with Panieum virgatum.

These marshes are deliberately burned by the resident, during the winter to reduce summer fire bragard.

Saw one black writting, several crows and several galls (hering?). Several writtines, he black, others too far away to be sure. Purple grackles, starlings, one meadowlash. In alightly higher ground in their words.

If injurid ambay in their.

with fratchez he in the first of Popular grand series of [7].

In other places tuniquement to colonize, and there are a colonize, and there are a course with thickly

scattered trees 15 - w tail

he entire waters de sur sur to be recideing, out away by bay waves. Perficient with cottages have fruit up retaining well, she good of lot, were not shu, so to the and we e elmost entirely, eliminated.

mostly of the columns from.

the ting at the edge of the writer in the ling end.

level, except the recently deposited dead ridger, tends to have decided to the thicket, and one of the second reconstructions thicket, and one of a very or carion of pine.

may 15-24 - fleepy Hollow, 1 mi. 2. of Falls Church

1953 Virgina

Cicadas (17 year locusts) emerging throughout the frening. In Brown's yard, which is a little mure open, they started a couple of days earlier than in more densely worded area. The nymphr climb up a flow freet into shrubs or on fence, then stop, split along top of thoux. and imagos struggler out, leaving the cast skins clinging to should. They heat here while their wings are expanding and hardering Then they climb or fly up into the treez, where they commence to make their characteristic low buyging whistling sound. Heems to be only the smales that sing. This moise differs sound of other cicadas, being much lower and softer infinitely less volume.

Mating was observed between May 22 and 24. The propulation in the ground in the words is quite enormous. Holic where laware have emerged range as high -- I in a square foot: They dig their way gut even in himly practiced ground as in paths, de

May 24 - Bull Run, 3/4 mi. 2. of the 1t. 50, 4 min w.s.w. (200 1min 38 - 41, 43 - 537 glentreville Small pland plain of tenase along my is thickly covered by herbs and low shoulds! The shale slope is thinly covered by Paronychia and vations larger

I hall flood terraces along Leutellaria local under trees 69 Carex local under tree, 70 Osmonhizg longistylis (7 an.) DC.

Under a flagiting some were able to burnow horizentally for enough to emerge. Others did not make it and dies in their burners.

65 m In the woods on the frat the ground cover is rather thin, roughly thin in proportion to do density of the words. Respedency, etc.) are prominent in this, but not mature yet.

flower blue - lavende, small to try culms spreading, almost procumbent. roots flesly, faintly anise-scented when broken

1953 Virginia 71-12 with Vd.T. Fairfax Co. 65 flowers quenish. 34671 galium circaezane liche. under trees flowers white. 72 Viola canadensis L. under trees flowers white, 4-parties. noots crange. erect, flower yellow. 1) galium obter in Beget. open grassy area 74 O scalis filipes Amal ofren preace with some small petal, white. 75 Stellaring prubera under the bluish grien, cut me erect. 76 l'on compressa flattened, forming open querry place sociall ofthe colonie by buried stringers. 77 Carec often grass, place, uncommon gellow, geta very sign they 78 Potentilla canadersi, L. 12 common in often praces ernarginate. 79 Plantago virginica recasional in open places 30 Carpenus carolinians small tree, 5 m, tall; common, scattered \_spiles prendent. in often and under trees enemy erect, single or common in open and under slightly carefutnes. culms erect, societies. common in open voots yellow; florion. 83 Lisyrinchium angustifolium Mill. common in open and under Treiz 84 Myrsoti, vena Mutt. rare in when

1953 Virginia lover part of crume, shall slope, soil thin. Euphobia peplus L. very common 700 Barbarea vulgaris common 01 applenium platyneum occasional about traces of thes Or Oxalis emogracy Jod. rare in open 03 Panicum occasional in open 04 Danthonia spicala common in open 05 Parietaria pensylvanica Mull. local in open VOT. 6 Tradescanting virginiany L. occasional under tre. Hopfighan Silifolis (L) Rick. 15 07 Taenidia integering (L.) Duck common under trees Low shall cliffy? Wordsig obtush (Spreng.) Torr. occasional on brow of cliff. 09 anobis lynata verasional on bow of cliff, 10 asclepias quadriftlig occasional on brow of cliff on enmbly shale. 11 Myssotis on coumbly shale at top of cliff, under frines

light green. mostly part. yellow.

flowers yellow. caespitore, evert. caespitory culms exex erect, etems fleshy.

glaverus beneath.

flowers white, meanly past. plowers grale printe

70 1953 Virginia 71 Fairfax G. 347/2 filene carolinana bernes finde on wehr, rat tending to be branched at base; anther manys. scapes very brittle. 1) Howhera in ledger, common 14 Laxifraga virginiensis Mishy. on wet ledges tentin On flat woodled ground Apreading by filiform 15 Lenecis theyomes; flower bright bare crumbly shale; -deep yellow. flowers lanender. small colony. 16 Hedystis caerulea common along trail flowers white. 17 hobeling spricate var. scapes mell occasional is small Colonies plowers bright yellow. 18 Cenothera oceasional in things often shots in wood flower with petal. bronze-purple. 1 7:05.19 Siparis Rilifolia (L.) Kich. 75 m May 24 - 14 mi south - 1 181.50, east of Bull Kun flower rose-colored to Prifordium reflexum L. rare along wandside planterect. 21 Clemation ochroleura in word, on some gentle sloge, some stone,

72 1953 Maryland June 7 - 3 mi. e. of Largo.

34722 Hedyotis purpured vas purpured 2 Tall nather open forest of oaks, hickory and tulip, thin undergrowth and continuous ground layer

> fune 7 Brown head off Broad Creek anne annotes. Cicadas numerous, signs of their egg-laying activity in from of dead twigg hanging on trees abundant. Driving along highway certain shots are passed where their sound is new strong, other places, apparently similar, where they are scarcely to be heard at all.

a few stems from base; flowers pale lavender.

striking variation sorted in Enigeron annual tothe in leaf cutting hairiners and robustness and degree of ramification. It is dominant in parts of abandoned field at 0' heilf place, elsewhere Vicing is dominant.

June 8 - fleepy Hollow 1 mi. s. of Falls Church 34723 acer ruhum L. 5 common in swamp

common along roadside, edges of swamp.

rare along roadside. edge of swamp

common along roadside, edge of swarms

June 11 - Talls Thurs, Quen -Vir das still present but numbers definitely galling off. Dead individuals on ground very common. Ther mity read twig, very unevenly distributed. fine tree, surving dozens og even hundrede of dead hanging twig, apparently the animal cuts the woody parts of the stem but not entirely. The cutting takes place, comousy enough, not back of all the princtures where

twigs from top of tree; leaver white beneath. ascending; panieles tufftr, culms erect.

small love tufts,

eggs have been laid, but leaving some on the living sich of the bean.

Diving south on phinley Highway no damaget trees seen south of Oxoquan Creek.

June !! - Eleng xing in Month Section of Park silanthus and Robinia have come in to such an extent that they line the since in years.

Seen walked we in so much that the wells are been mind polished, and gere plants except Higgstin canadensis have been able to persist. The latter, in Lwarfed from persists in twarfed protected places in the rock.

at Big I headows,

the main meadow,

east of the wad in to

the camp, is becoming

conspicuously invadedly

wordy species. The

places that a year or

two ago were grassy

are now covered with

growth of young

Robrinia pseudo- acaiia

a foot or so tall, and a

very few feet affait.

Tow fratcher of lary or

end busher of

Crataegur, etc. 2.

The lower and,

is thich low work,

and the whole in

Losing the aspect of

a Meadow.

The meadow below

the meadow below

is not showing much

invasion yet.

1953 Vinginia Laber Typet June 13 - 12 mi. s. of Police Church 34727 Verbaseum blattarig L. were in weedy wad side hally June 13 - Lebanon, eztate of In Paul Bartach, near Junston Half Ten glen er tablished in revocied revine. Fiftag or more species of frms, as wer as many insectionour, elante and sorra orchida y viving in semi-natural condition wo small sphagnum bogs a stream with pools, sandstone and limestone walls, a stope with Opining forsum vulgaturn growing in a lædge colony. He survivding wood is full of Lonicera japonicum which would envelope the whole if vigilares were relaxed

Bird feeding station attracts a great number of species.

Tive grains of wood-duck said to next there, also r pairs of pileated woodpecker, 458 asses in estate, Colonial house.

20 m

the mi. w. of Williamsburg I mi. n. of Fine Forler in generally nather thin bringed wer. with then ever with thicker places in words. Form rolling land, marshy places in lower sports and along streamlets.

34728 Selaginella apoda common in acid swampy place with a little running water.

very local in small marshy place, now badly trampled by cattle.

2 31 athyrium agreenivides swampy forest

> 32 asiming triloba in warshy places along stream, with royal fern.

creefing but fertile branches ascending a evert.

nostly past flowering; dish, low, green, rays yellow.

wetter

showles, steril

June 15 - Feeder Ditch,

running into Lake Dummond from canal on east side

To left, going in, is dense growth of Myring and turndinaria, with very few small tree.

To the right are many scattered Pinus taeda and Eigeridamban at first becoming shortly a thrish first with some admisture of other some admisture of other

left bank is a strif of spring Pinns tack apparently In the full from the ditch.

Banks lined with summer sending aller with musicaling tangled with musicading and donicer gapanica in pull bloom. I tendium locally. I wither in the june strip besome hoader and more mised with hoader and more mised with higher and more mised with higher.

ambar and halis nigra. After a both is replaced by the two latter, which then become more or less broken and open (both sides).

This ferent on broken woods, on both sides in fractically restricted to the ditch banks. away from banks in Myring - arundinain, thicket up to m. ligh, flooded at

are patches of words, largely Pinus taeda.

In near labe in almost solid forest of Riquidambar, changing to myssa and area sp. some falig migra Persea oreasions.

fort filed up along ditch is light gray, with recasional deposits of oyster shells. fune 15 - Lake Drummend roughly circular lake. Water dark hour, with peculia but pleasant taste. The whole laky is surrounded by firest. and is small elmough so that it impresses one as a lake in the middle of deep words. Much of the shy-line is very even as though there had been little disturbance. One stretch, in the west in southwest side is very ragged, with sparse treed above a dense lower story. This is where there was a disastrous fire lasting about a year (ac. When,) occurred

The water is held in the lake by the dam at The spillway and feel down the ditch as needed to maintain the water level needed in the main Inland Waterway Canal. at this time the water is so high that some is being let go to treet the lake from overflowing into surrounding country and flooding agricultural lands. Fait summer the lake went almost dry.

low arching, with the \_inequelarshoul. shoul 3 m. talf, frint immature low shout, 1 m. tall tree som. Tall main stems closely

Chamaery haris is common at edge of lake, but doesn't form dense groves. a few Tascodium distichum, very small, out in the lake

appearing districtions alender sparsely branched should 1.5 m, tall.

slender trel 6 m. tall.

notolle Co.

95

Law a deer at edge of ditch between spillway and lake.

springy vine, stems dark dulf green, leaves somewhat glavieous beneath; fruit immature. fronds ered.

extensive woody ving.

- caespitors, bud, fichish, extensive woody vins; leaves very glaucour beneath.

June 20 - Bull Run, 34 mi. s. of Rt. 50 crumbly shale sloper on east side of run 39159 Baptisia tincteria

in woods at top of slope 60 Chimaphily maculaty in thin wood, common

61 Khus to cicodendra var. radicans common, at top of shall differ, in open 62 Ostrya virginiea on low cliffs

on bare soil, in open

or bare soil, rather open

67 Rosa carolina rather ofen.

open slope, common.

48 Hedryotis purpures vas. longifolia common on open stope

69 Clematio ochrolenca rare in thin woods

70 anemore

rare in woods, lower sloper

spreading hero, flowers lemon yellow leaves dark dull green with light marking, flowers white, fragrant, - anther dull pinkish. erecting should, leaves bright green, - fruit green. tree 6 m. Tall, fruit pale green, pendent.

on ledges of low shale cliffs, dense shad.

showle up to 0.7 m. Tall, - flowers bright rose pins. love tofte; flowers - lævender. erect

erect,

1953 Vinginia 99 Fairfrax Co. June 20 same rich wooded bottom land on flood terrace, east side of run. gatites Hedystis purpures ver for funes branched from Jan, occasional at front of slope flower pale lavender. in words flowers violet and 72 houtellaria lavende rare in this words. erect; blowers white-13 Cryptotaenia canadensis 13 common in edger of woods along around cleaning. tree 10 m. tall, 74 acer negundo racemes pendent. words along stream ever 75 Sanicula common in woods in muddy margin of stream on flat bar. erect, flowers lavender 76 firsticia americana marked with deep common, forming maron purple. extensive patches flowers white. 77 fagitlaria common lower stopes in woods, shale exposures stoms ascending, 78 galium curaezans flowers white 19 geum canadanse Jacq. rare, in wet rock ledge

34783 Guereur phellos x marilandica?

single tree in deeps
ravine in woods

2 84 Dryopteris cristata (1.) gray
moist wooded ravine
bottom
4 85 Fagus grandifoliques
edge of thick Leciderous

woods on rather level

to rolling ground.

June 23 - vicinity of head

of Broad Creek, South River

102 1953 Maryland

June 28 - Hembreh thrings Overlooks Wet brank above word has several species of Carex that should be collected. by culvert, about word is a colony of Equisation lanicula (large 24) around franking lot. Virginia

July 8 - 9 mi. s.e. of Leesburg on Leesburg Pike, just L. e. of Broad Run Wood of linus virginians 20-25 mitall, crowns rather small, making a thin canopy. Marked second story 5-10 m. tall principally Cornus florida, some ace nutrum. Floor completely invaded. by Lonicera japonica, I hneedeep in places, bare in a very few spots. Scattered strubs of Lymphoricaspos orbiculatus, a few bushes of Vilounum prumipolium. forme Varthenocissur mixed

with the Romeing. a flew miscellaneous deciderous tree seedling a few herbs, but none of the characteristic virginiana. Lome signs of grazing, no obvious sight of fire. Places with mo Lonicera near edge of woods frave Danthonia, some Hedysti, purpuea var.

Foundown Co.

longifolia.

34794 Hedyotes purpurea var. longifolia occasional in grassy spot near edge of pier woods 95 Myssa soglivatiles me tree at edge of pine woods. 96 querous small buch edge of pen woods

single stems or slightly califitare; of Corners - pall larender. small tree, 10 m. tall; - fruit immaline. small sterily bush.

July 13 - Deale Beach The entire area from Deale north at least to further than Shadyside has a terrace which appears to be about 1-2 m. above high tide level, very flat, of a gray silt which is hard when dry. This is up to several miles wide, backed by an evoled escarpment to fronting. the general level of the crastal plais. This 1-2 m. tensel is generally worded where not cultivated. Most of the words are regger unever second growth langely Eigenidambar, Pinus and Robinia, with Prumus, Diospapos and vales. Locally as n. e. of Shadyside (see p. 112) there is an oak frest which may more nearly represent what was here prin to man's activities. The outer edge of This terrace is deeply lobed and between the love are areas of salt marsh, inlets, and sand ridges, the latter usually

on the outer borders of salt march areas or meadows, vegetated with a sod of Aparting potwith admixtures of Larque robustus, Juneus sp. Iva frutessena, Trypha. Parisum virgatum, etc. The sand ridges have a masais of Iva futoscer Bacchais, Phragmites which encraches on the march, Sparting (large sp.), small shrube of Prunus seroting et Older ridges have young growth of Liguidamba, Prunus nyssa silvatica etc. white 15 m. tall. These shade into patcher of slightly bright ground with larger and more complex woody regetation and it is hard to tell where the constructed sand ridges end and the tenace begins. the outer edge of the sand ridges is fringed with a dense sod of sparting (tall 2/1) with tangled shizomer embeddes in silt. along the

entire part of the front of the examined the water is obviously cutting this array quite rapidly It is underent with bare theyomes expressed and frequently slumping down in large churched. The water furt outside this varies from 0.5 to 1 m. deel at bright dids, and church of sod are littered over the bottom in places from several out from the shore. Breacher are few and very small. In me place was an actual constructed coast seen. Out from this the bottom is selt, with some embedded shells. It has slight undulations but gradually slope from 0.5 m. deep along the shore to 2 m. between 1/4 and 1/2 ( meaner to 1/2 generally) mout

a possible interpretation of this tenace is that it is similar to what would e be exprosed by a fall of 2-3 m. in sea level in the area now covered by shallow (0.5-23.) water. The silt on the bottom at present is about like the material comprising the terrace. the topography, with slope and very slight relief is much tily the present bottom. The amount of evoring that would logically have taken place in the last 5000 = years, since the post-glacial brigh rea-level would have removed the shells inthe surface layers, even if they were not dissolved out . If the terrace were a cut surface there would be no deeper shell beds, at least of recent age.

118 1953 Harayson Maryland anne anundel Co. 119 Deale Black therapeake Bey 0.5 mm. Open place on low sand ridge between buy and salt march. 34799 Cyperus exculentus L. spreading by deeply local colonies in love sand buried fine shizamez, erect, leaves fleshy; Cabrile edentula (Bigel.) Hook. local in love sand flowers with yellow sepale and white petals 01 Mentha crispa L. erect from prostrate 1,5 mg. local along bence-row, slightly buried shigome: prossibly planted and strongly aromatic, spearment persisting. odor; blowers lavender, anthers ned-hour. July 14 - Yr mi. w. of Deale Beach, mi. s, of Churchton in woods of quereus palustic, and according on low, poorly drained silty soil. or Dryofiteris novebracensis fronds light green, ascending, b. fragrams (Perls Bunh. fragrant, rhizome prostrate, - slightly buried. colony of your more plants Dryopteris thelypteris fronds assending & erect, var. pubescens (Laws.) Waliai all sterile, light green; colony of 100 or more plants shizome prostrate; attigately superficial under dead 1/3 acon ruhum with a few querons voluting, g. alba, Closed woods of rather small trees about som. Tall, up to 2, rarely 3, dm. doh. q. ruha (?), and a very few about of queren palustics, myssa selvatica on

120

poorly drained heavy gray silt soil. Generally a sparse reneven story of tree seedlings up to 1.5 m. tall, mostly acer rulium, some myssa quereus, etc. between them in spots where the frest is thenner is a love tangled laner of Campsis radicans about 0.5-0.7 m. tall, (not in flower, though in open and at edge of words it is flowering abundantly) in denser frant of roods this replaced by a sparse lager 0.5-1 m. tall of Amilas rotundifolia and Jaccinium commbosum, with small try seedling forme spots completely base of any hort layer, others with this sterile grass .

July 14 - 1 mi. n. of Churchton Firest 20-25 m. tall, trees 1-3 dm. thick, campy essentially complete. - mixed oales - quereus palustris, & phellos, g. falcata, some been ruhum and Liquidambay

locally some q. alba, a q. velutina. Composition in all layers varies locally. Under story sparse and uneven, of tree seedlings of varying heights, locally much tangled with Amilax, a little Campris. ground layer of gran Start very uneven ! large patches of bara ground, locally a little Aplagnum and lanex colonies of several kinds, occasional man cushim. freally a few quenus alba and greenens primes sapling, many myssa safelings, 1-5 m. tall. ford gray, selly, fronty drained, covered by this oah-leaf duff.

July 13 - 1 mi. n. and 1 mi. w. of Churchton Small area of frest of large trees, about rom. tall mostly 3-4 dm. doh. widely spaced canopy somewhat broken. principally querous primes

and of falcata, some Riguidambar, a frew Myssa, acer rubrum and Lividendron. Understry to 10 m. of Ulmus, Frazinus, Myssa, ace ruhum, very much tangled with Ronicera japonica and Rhus toxicodendron. The two latter froming a dense ground layer, also, varied locally to with areas of pure Impatiens, or more locally Bochmein, or grass, or Omorelea, one large area of glechoma. some large Vitis lians climbing into trees. foil a gray selt, locally growly drained.

This area of a few acres surrounded by

logged out decadent

woods.

anne anundel Co. July 14 - general vicinity of Deale Beach and Churchton. Amall cultivated protober, more old field, second growth thickets and woods, with a few wrear of tall woods as described. Original regetation probably a varying species, probably with some Myssa, Liquidambar and are rubrum, small numbers of other trees. Logging as well as cledling and later abandonment seems to favor especially the Liquidambar, but most of the rake are well represented in the young growth, as well as the ace. There is much Rhur, etc. that disappears when

the forest canopy closes.

anne arundel Co. 1953 maryland July 15 - Deale Beach · Chesapeake Day edge of salt march Elymus virginiens L. virginiens (L.) somewhat caespitose, somewhat calculators. 05 Cyfrens ovularis var. sphaericus, Brecht. rare, in hard ground whereast from delphy brings thingone sharply triangular. 06 feirpus americanus Pers. dominant in part of salt march immediately bodering on bay. July 17 - same side of Row sanda ridge towa bay edge of dense

sediments.

July 14 - Fais Cliffes south

of Fairhaven

Cliffs of gray diatomite (?) up to 3 18-15 m. tall,

straight up from water being very slowly eater

away by the water.

Unconformably, on top of this is 10-15 m. of wnen-solidated rediment

of a gray how colon with eller

with ogster shells in it. Inthe diatomite which is

so soft that it can be

erumbled or cut easily, are numerous fossils,

principally small bivalues of several brends, not well

preserved, principally as castr and molds, first

scales and bits of lignite.

In the lower layer of this, about im. thick, at water

level, are numerous forsily of a black coln - casts from a

tower-like gasteropod, shark

teeth, biralnes, fish vertebras, jaw fragments, limpets, etc.

which most likely are not of same age as diatomite,

as in the same bed are

numerous flint-like black pebbler, etc. all this

black material probably

dates from an earlier bed that contributed delvis to the diatomic

128 1953 maryland

July 15 Cliffs south of

Fairhaven

34807 Elymus virginisus var jejeunus

welleaving in woods (Ramsley) Bush

at top of cliffs

i 08 Phragmites communis

large patch at top of

sandy peach in mobils

of broad ravine cutting

cliffs.

anne annold Co. 129

evet, slightly coespitors

shipmes complicated,
branched many ways,
older ones slightly compressed
deeply brises froming
a dense sod; canes
up to 2.5-3 m. talf,
inflorescence delp purple.

700

1953 Vinginia

fuly 18 - Étizabeth Furnace, west side of Passage Creels, thenandoath Co.

Shale slopes - exposurer of thinly bedded Dermian shale dipping almost vertically, soft and

enumbly with deposits

of broken up shale dehis, hagments very fine, in

depression, on ledger, etc.

no conspicuous large talus slopes.

24813 Denothera angillisola Mack. common on tradside shall cliffs and talus.

34814 a Hedyotis

fuly 13 - Edinburg Gap Shen and oak Co. Shale sloper with sparse small pine words

34814 Eriogenum alleni Wats.

July 18 - Boyer's Turnace, Shen.lo. 15 Physalis nare about old furnace Phlox subulata is
common, Draba ramozissima also. Trifolium
virginium occasional.
Oenothera argillicola common
on lower cliffer and talus
along wad
Most plants not in
recognizable condition
because of extreme
dry spell, or not yet

These shale barrens are definitely shale outcoops rather than shale talus base,

branches not branched; fetals yellow. (In Fernald's ken it was to villosa, because

of thirsute oraries.

Eriogenum seattered in ofpenings in pine words. on slope, but on woodcut and talus at base it is abundant.

Coasely branched root crowns, making small clumps.

very viseid; flowers pale yellow with purple-bonne

massanutten mts. 135

forming small thickets

erect, flowers greenish white.

prostrate with
erect branches.

shigane prostrate

aug. 12 Elizabeth Furnace, Fort Valley Talus at boot of shall cliffer at along wad covered with Denothera argyllicola. Same colony as #34913. tlowers new/ larger (width = 9-10 lines on this grage) - ovaries and villous. Flowers distinctly zygomorphic. The stamens all marply bent in one direction from point of attachment at base of corolla, then gradually upreurved so that they spread spoon-wise over one half of the blower,

aug. 13 - same
White Pine Plantation

ftrip of young white

pines about 50 m. wide

not more than \$2 - 3 cm. of

reedles on ground.

Leedlings and sufflings

of Ulmus, & raxinus and Comus

on ground.

most common plants

a Rubus (dewberry)

c Parthenseissus gunguefolia

O Chimaphila maculata

a little shorter than petale ( petals 3 cm. l., filaments 2 cm. anther,

grandled with filament 9-10 mm. I attached

just below center, pristal 3 cm. l., the brancher somewhat thickened 4,5 mm. l.

When strenged just before sunset very few flowers spen, just at dush n beautiful display

(Has been deser as var - Cartanea)

c Desmodium nudiflorum

o galium triflorum

o gnaphalium purpureum la centennais plantagines

la nepeta hederacea

o Veronica officinalis

Back of this was a grand patch of Pinus virginians but several months ago this was cut from pulpivois. feathered trees (seed trees?) were left 5-10 m. apart.

Scattered second story
of corning placed feedlings
of deciderature trees, ests.
Cereis, Connur, etc. coming
up, with many weeds.

aug. 13 - Fort Valley about

1 mi. above Organization Camp

Road.

Patch of Pinus verginians

words - small trees 1-2

Im. that doh, 10 m. I tall,

2-3 cm. of to needles on ground.

Rolling to sloping ground.

Rolling to sloping ground.

a few oak, Carya, and

red maple seedlings.

c lespedera procumbens

la Rubus

la Rubus

34829 galium pilosum

1 20 folidago pruberula
locally common

31 fospedeza
cornem

19 32 Clasloria abundant on ground 13; asplenium platyneuron locally abundant, especially m slober Humus 3-5 cm. deep left in place much of it seraped off. Hypericum gentianvides common in bare spots.

Shenandoah G.

la Centames maculossa

le folidago pubernla

o Vernica officinalis

o Hedystis purpura v. longifolio O Parthenscissus quinquefolis

or. galium taightown pilosum

u Lycopodium complanatum

go antennaria neglecta

le Deschampsia flexurea

o Rhus toxicodendron

o Polytrichum commune

la Cladonia

o anacolia?

a Monotropa hypolitys

erect flowers bright

yellow.

prostrate from deep

root, blower, rose pinle

with red in standard.

forming lower

rounded greenish gray cushing

sterile fronds prostrate,

fertile erect.

34834 Monotropa hypopitys

1 35 Hedystis purpurea v. longifolia

36 moss occasional 1 37 Leucobyum

above Dietrick Detrick

from that of fine winginiana, somewhat

graned, with about

on tall, beside it

a patch is m. tall, and

next to this, a small

stand about 1-rm tall.

In the tall fratch are

seedling and sapling

oals, fassafas, carrya,

cen rubrum, connu,

a little timilar.

The plants in the pound

layer are:

34738 Hedystis purpures s. longifolia abundant on dry numbly shale slope 39 Kulmis enpatorisides L. common on dry crumbly shale slope shenandvah Co. last years plant,

forming small round mate 1-1.5 dm. across organisas pale green cushisms.

c. Chimaphila masulata

r. pedega procumbers

o Hedyotis purpurea longifolis

o. Rosa carolina

o Danthonia spicata

o antennaria plantagines

u Vermies officinalis

In the two younger stands, of these plants the Respedera, Hedystis, and Danthonia

many weedy plants

There are on and mean the tot of a hill that ends

slope that is open.

to white, heterotylow.

deels-rooted, branching at base; florous cream white.

fhenandows &. 1953 Virginia purple. 40 Respedera watery slope 41 Denothera purple. assending, flowers yellow. rare on dry crumbly shale stope Escarfiment with a - ang. 13 - Fort Valley, near slope above it - the Joppa Road, along Passage Cred slope wooded with Low cliffs out in low second - growth fossiliferous shall oule woods, ericaceous - abundant Devenium undergrowth - open backiopods. border above escarpment with Vaccinium clamineum for shale clifts with and Efrigarea. Erosled. ledges and steep sloper, with abundant from C-a Ceenila siganoides a asplenium trichonane, a Klustoxicodendron e Wooding r. Spirala betulaefolia C-la Polypodium vulgare vi virgini le fot Chisnanthus virginiens 1. Dryopleis magnate Se asplenium platyneum la asplenium shigophylising I a Hesshampsia flexura e Heudlera americana a Hedystis purpures v. longifolis Ic Kumer acetraella soft cushions 311842 mors common on nouver ledges prostrate 43 asplenium shezophyllum locally abundant on low cliffers 44 asplenium tichmanez abundant ( md end 45 Wrolsia obtusa (Spreng.) Torr.

146 1953 Virginia

tabel type aug. 13 Fort Valley near

Oale fevels, w. of Padsage Creek (opposite Kennedy's Peals) Frest of Pinus virginians 1-2 dm. thick (dbh), about

15 m. Tall, on slope of hill.
fittle undergrowth

except occasional reedlings of oalrs (c) aces nulrum (c), Carya (o), fassafras (o),

myssa (2.) Francisco, Juniperus (2) americana (2.), Corners florida (2)

grøund læger spare, of E Lespedera procumbent

e galium pilosum

e Chimaphila maculata

c Rubus

e consis floor

¿ antennaig plantagines

o Rosa carolina

o Crataeques currents

o-c Viola pedata

o Vaccinium stamineum

a Parthenocissus quinquefolia

3 4846

several busher

Up. 13 - Fort Valley

sparse ford of fines virginiana 1-2 (-4) dm d&h 8-10 m. tall, on slope o anthonia spicals

gl antennaria neglecta

o Vaccinium vacillano

o areyrum stano

u Rhin toxicodendra

ul Pyrnanthemum flexuosum

ul Pyrnanthemum

st folidago priberula

a Chimaphila umbellata

a fanicula

o Potamogeton canadensis

le anacolia

shout about i m. tall, diffusely translied.

of hill very little undergrowth Ground layer of: a unternain plantagines a one Potamogeton canadensis la Danthonia spicata Label 1953 Vinginia

Label 2.a. Viola pedata

c aserpium stans

c fespedera procumbem

e antennaia neglesta

e gardinsacia baccata

o funiperus vingimiana

o Chimaphila maculeta

o quereus ilicifolia

(large old plants)

april ang. 13, - along Cedar Creek about half way between Marlbors and Oranda. Frederich Co. Creek meanders, according with cliffs birst on one side then other. flats on opposite side from cliffs. On flats nich bottom- land bonest much Platanus along creek. on talus at base of limestone cliffes are seattered Things occidently some Tilia.

scattered in undergrowth

Shenandoah Co. Fredrick E. 149

la. Claderia

u Rhus toxicodendres

u Galium pilosum

u Lolidago pruberula

u Crataegus euneatus

a seedlings of oales

la seedling of carya.

large old shrub 2-3 m. talk, several m. wide.

above ine is mined seemed growth vale forest.

Labels of Commelina execta

74849 Commelina execta

15 50 Oenothera argellieda va.

13, 51 Euphorbia en barrela scattered on barrela waste place and on roadsider

stems spreading to ascending; flowers bright purplish blue lower petal white, open in marriag.

herbs up to 1 m. tall, herbs up to 1 m. tall, herbs up to 1 m. tall, herbs yellow, androesium gygomorphic

erect, brack white.

Rockbridge Co.

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aug. 14 - south side of Cave Mt. slope with rather ofren frest of large trees with tall straight trunks up to 6 dm. Thick thee mostly oaks either griencus for pallestin or g. coccines (could not be seen but from trabitat ferobably f. coreines - los. broadest at second pair of loves from tils) but large g. princes, g. alla fiveliting and brydendrum arboren also commen, nog as large as gicere. Undergrowth is almost continuous Cornes florida, mostly 1- 2 m. but scattered Trees 5 mg. young Vitis of common. o mysta seedlings u Carra seedling) u fassafors. o Chartner spronts la Vaccinium vacillars walls have good growth of Parthenocessus, Vitis, & Pellaca etroaug. 14 - glenwood Funas, Lamuel Parker memorial toest, and Valley. a planting of linus Taeda made in 1933, (rees about 1.5 dm. Abh 15-20 m. tall, canopy mostly closed dry needles 5-3 cm. thick on ground, undergrowth very sparse. a very thin second story 2-4 m- tell, in parts of forest of thumb size ailanthus altissima. seattered strules: le hymphoricapos orbiculatus n Conglus M. n. Corner florida o Vilbunum prunifolium u armina ground cover c 'Chimaphila maculata o Rubus c sodyera fuberiens. a Kespedeza procumben de Rhus Todicodendron r. asplenium platyneuron Parthenoissus quinquefolia u Cassia nystitans a Dasmodium sp. a galium pilosum

ec Vitis seedlings

le date seedlings

u fumperus virginiana seedl,

u fassafras seedlings

Labela ang. 14 - north Creak, 3 mi.

that canyon bottom with large boulders Large Tsuga and Vinus studen dominant in frest on vally bloor, with some allowing Platan a ben quereus alba and Corners florida. Lubstratum of deep humus completely filling spaces between the boulders, covered by a Thin ground cover of things mitchella repensants moss on boulder

- o afrlenium platagneum
- o Dioserea o Amilacina
- o Chimaphila maculata
- o asaum virginium
- o Vibramum aconfolium seedling
- B a few tree seedlings.

34952 Mitella diphylla 6. abundant on rocks at foot of cliff 53 goodgers repens a ophivides Fern. rane on webs at frost of elift 54 l'olypodium vulgare var. virginiam m 14 abundant on webs at foot of cliff 55 Mitchella repens L. abundant on rocks at boot of cliff

In the woods are no fine seedlings and very few hemloch seedlings. but en a very small ofening, no more than 10 m across; both are abundant. In opener part of frest on flat astrya and carpinus of side against very steel wall, covered with forest of Tilia. I suga, acer nigrum v.gl. Ulmus, Oxydendum, Hamamelis Boulders at base covered luxuriantly by mosses. a Polypodium vulgare

a Mitella

e Clintonia

c Hydrangea arboressens

e Dryofteris marginata c Polystichum acrostichoides

c adiantum pedatum

a aranom virginizum

a Whitchella refiens.

leaf veins outlined in whitish. whizenes creeking on rools and in humes. prostrate leaves dull gran; fruit searlet.

156

Botetourt Co. - Bedford 57 aug. 15 - Peales of Otter Station, Blue Ridge Parling base of blangs Top. Wroded hill just above station - oak freet, mainly quencus autra and qualtra with a few Carya, Betrila lenta, and many large old chestnet stumps. Canopy complete, perhaps 20 m. tall. feelend story 5-10 m. of Cornus florida, some quereus primus and amelanchier. shout layer 0.5-1 m. mainly mangiesia pilosa, Milhododendian (agalea), myssa, Kalmig latifolia, Vibunum accifolium, and Castanea sprouts. søtterblager - Pyrola americana, Chimaphila maculata, Parthenocissus grungwegolia, Medeola, aug. 15 Sharfitof Peale, Youles of Otter - Wooded

Carja sop. some q. alla.

Bedford Co.

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Bare browlders covered by leathery brown Umbilizaria, in places as much as 1.5 dm. across Boulders rounded, expoliating.

composition of serul: quereus ilicipoles Khododendra estawbiens Kalmia latifolia Corylus Hamamelis Castanea dentata sprouts Myrica peregrina menziesia pilosa Pieris floribundo Vaccinium vacillans gaylussacia and occasional Newspryosving. facrafias albidum acer rubrum querus primus spronts amelanchier dense shrub 1.5 m. talf.

low lovsebush, o. 5' m. tall; fruit black, edible.

should 0.7 m. Tall.

Shenandoah National Part 65 164 1953 Vinginia of Rockfish gap, Skyline Drive 1 m. tall, flower purplish. erect. Datura stransmin -. on fill below road thereby 77 Polygonum Tenue roadside at base of cut appearing prostrate, darle green. 77 Paronychia montana (finall) P.+ H. on bare road ent aug. 17 - Jarmans gap second growth mixed woods sterile shoul 1 m. tall. 79 Vibunum prunifolium L. sterile shoul 3 m. tall. uncommen 30 Celtis occidentalis L. rencomma leng. 17 - 2 mi. s. of Rocky top O'verlook, cliffs at head of Big Run low cliffs of greenstone, shaded by order and hemlocks. herber 2 1.5° m. tall, rays and dish yellow. 81 Helianthus trackelifolius Mell. in dense tangled herbaceous undergrowth under trees 82 Umbilicaria abundant on greenstone cliffes. 83 Umbilicaria 13 abundant in greenstone cliffs eaespitose, leaves 84 Carex and culms drooping 85 Hedryotis purpurea v. longifolia caespilose shaded talus ut foot of chiff

Shenandoch nat. Pach 167 Vinginia Robels 19/4 34886 maianthemem canadence Deef. common at fortof clift and on ledge, under hemloch, in deep hummer. tufts 13 87 Carex on ledges in partial shade aug. 17- Big Run Overlook gellow. 88 Ochothera biennis L. common on taling road-cuts and talus Tree 8 m. tall. 89 Pinus roadride and the 90 Cheilanthes lanosa (Michx.) D.C. ledges of rocky road cut erect. 91 fanicula marilandica occasional in strade of woods along trail aug. 17 - Pinebields Shelter was. erect, to , m. tall, flowers 92 Denothera biennis L' yellow, betal, refleced common on wad ents somewhat at full anthesis, and embankment, androeeium zygomaplie, all stamens, a, mor of te, all but me deflexed to me side, style variable in length - serie of spikes to show variable schaltips and spetal and style lengths. 93 Cratalques crus-galli L. zm. tall, fruit immature.

34894 Botrychium vinginianum (L.) Sw.

95 Botrychium dissection v. dissection occasional in bottom of worded

96 Botrychium dissection f. obliguum common in bottom of

1, 47 Hedystis fruspurea var. common en rather ended slope under Thin woods

98 Lanicula canadensis L.
common in rather thick
woods on slopes

14 99 Myssa sylvatica marsh. in brushy open field

aug. 18 - Hemlock Springs roadside in woods 34900 Helianthus decapetalus L. 13 common in edge of roods 13 01 Hypeieum punctatum Lam. in edge of springs 4 × 02 Equisetum augustatum Lam. around spring at edge of road

haw a wild cat cross road here at about 5:70 p.m.

(muhl.) Fern. only sterile plant, seen.

not caespitore.

erect.

small shrubly tree 4-5 m. tall, fruits green, 3-4 in a cluster

erect, rays and diste - bright yellow. - erect, plowers pale yellow (almost give). yellow (almost give). (out of range of var. boreale but has rangled branche,)

Virginia ang. 13 - Big Meadows bog surrounded by dense thisket 4903 Hypericum punctatum Lam. rare in edges of thicket, low ground. rare in edges of thicket 03 agrimonia gripposepala Walls. rare in edges of thicket 06 Fysopus uniflores rare in wet ground under trees in thicket 07 Cienta maculata L. 12 common in open part of bog 08 aster umbellatus mil. local in open hant of bog. 09 Eleocharis obtusa (Willd.) Schulter local in muddy open place in bog. 10 Elevelais deminant ingrusery practof H- Brychim 11 Isoettes engelmannii in muddy place thinly covered by ffirmed in bog. Rosa palustris common in open bushy part of bog 13 Botrychium dissectum rare in low ground in thicket

Thenandoah nat. Park 171

erect.

erect

erect.

stem reclining; blowers whitish.

erect harb 1.3 m.tall, with strong vily order. forming dense colonies several m. across; erect, rays white, dish bale yellow.

leaves subangular,
glossy (eater off by
animals)

shrub in tall, plowers
rose pines leaves stightly
glaveous beneath.

Shenandoak nax, Park 173 Virginia 1953 forming small hummoch 34914 Osmunda regalis var. spectabilis 1 rare in open svet part fronde, est pertile ones, strictly erest. Dryopterio thelypterio abundant in open much trant of bog, or sphagnous hummocks. stems wealsly erect. 6 galium trifidum var. tinetorium (L) 7, 9. occasional on sphagnous hummoeles in wet part of shoul 1.5' - 2 m. Tall; 17 ) lex verticillata (L.) gray fruit immature. occasional in bog erest, simple a branched 8 Vernonia noveborakensis (L.) from base, 1.5 m. tall, occasional in open part flower deets bright purple. of bod stem ascending, fruit 19 Trantretteria light green, shedding occasional in mount low 20 Botryclium dissetum s. silvifolium (Prof)Clause very easily. in open meadow around edger of thicket aug 18 - Abylin Drive The Colinia preudo acacia which lines the drive in many harts is go rather brown at this season from the cettacles of an insect which eats the mesophy tissue of the leaves.

on gravel in day low spot in dry part of stream bed.

ang ?? - Fort Valley, I mile above Organization lamp Road, massamutten mits; wery amall pratch of Pines virginiana feattered oak saplings, common recasional amelanchies applies of chemaphila maculate chimaphila maculate Rosa carolina e Rubus officinalis

aug. 23 - Elizabeth Furnace colony of Denothera angillieola at front of shale clifbs of road cut. - On many benothera plants examined the free tips of the calyx in unexhanded bud vary

Levelryum

Bartramia?

la antennaia plantagines

Polantilla simples

o Parthenocissus gunguejoh,

from erect to divergent at as much as a 45° angle, and from straight to incurved. Therefore the main character separating This species and Two others (brennis and grandiflara) from the rest of subg. O magna will seldon work on this was, at least. The divergent character of the capsules, is evidently good - no exceptions noted - bases standout at 45° a more from stem. Leaver always relatively crowded, linearlanceolate, subserrate. androseium zygomorphie.

In a desired growd prine patch - Penus virginians 1-2 drm. dbh, 20-25 m. tall, i em duff on surface of light gray soil 2-3 mitall leads tary of mixed oak raplings, with a few firstendendra saplings almost fracious sapling, almost seedlings, occasional corners florida. Vitis sp. fhrub layer about m. tall a less, of tree ans,

1953 Virginia seedlings and c Vaccinium vacillans c tassafras seedlings ec gaylussacia baccata la Kalma latifolis o Vilounum prunifolium u ace rubrum seedling u amelanchies u teres canadensis seedling a Rhus toxicodindron a Crataegus sp. ground layer, of very space, of a bolislago of. c Chimaphila maculata c Parthenocissus guinguefolis l'obstrichem commune patche e c achilles assettes le Veronica officinalis Oug. 30 - Elizabeth Furnace

Fort Valley, massanutter mit along brook in small raving 34922 Equisetum pratense Ehrh. It greater small colony, closely gregarious 27 Egriesetum blychnale van affine (Engelm.) a.a. Exx. forming dense beds

185

Irwa Co.

Home 1953 Wisconsin Jourg G. Sefrt. 6 half way bet. dreng Plack Earth and Ridgeway, Jours 6. erest trassending, 34924 Setaria faberii Herrin. along roadsides and in edges of fields panieles modding.

Oct. 4 - Between Bull Run and gainesville, s. side of main highway Frest of Pinus vinginiary trees, price stand, trees 10 cm. 5 thick, 15 m. tall. Very little undergrowth a few seedlings and saplings of quercus, Fraxinus, etc. and some small cornus florida. tharse ground layer of Chimaphila maculata, Kespedeza procumbens galium trifloum galium pilvrun Polystielum ausalichoids gerardia sp. (purpunes?) Rhus toxicodandras Rubus (dewberry) Thin net of Konicery He humis layer is Thin, & cm.t, thicker near bases of trees. The whole thing is dry as tinder at Ithis season.

